

Recent Fern Literature

THE VICTORIAN FERN CRAZE, by D. E. Allen. Hutchinson and Co., Ltd. 178-202 Great Portland Street, London W. 1, England. \$3.00 postpaid. 83 pp. illus. 1969.—Today's growers of ferns are, by and large, a sensible lot, who grow their ferns in plastic pots on window sills and who even may have some scientific interests that run to the detection of hybrid ferns or the discovery of the life cycle of some particularly interesting species. A century ago, however, such was not the case. Gardeners, particularly in Great Britain, were seized with a pteridomania that rivaled the tulip mania which had seized Holland some time before. Hybridization of ferns being difficult and full of chance, the fern fanciers of Victorian England combed the wilds of their island in search of sports and fancy varieties of their native ferns. In many cases, they decimated natural populations. They searched their gardens and greenhouses for specimens varying in texture, dissection, and habit, all with an eye to presenting a striking novelty at the next garden show. The principal stimulus to this frantic activity was the popularization of Wardian cases which, being closely glazed, developed a high humidity suitable to the growth of ferns. Even filmy ferns could be maintained in an average home in a Wardian case. Unlike the simple terraria or bell-jars of today, the closely glazed cases of a century ago were ornamented with considerable quantities of intricately carved woodwork. They formed a large and very fashionable part of the furnishings in the best homes of the time. The discoveries of Dr. Ward and others, the production of books on ferns by both amateur and professional botanists, the pteridomania itself, and the eventual slackening of interest in fancy ferns are all admirably told by Mr. Allen in this delightful book.—D. B. L.

WELSH FERNS, CLUBMOSES, QUILLWORTS, AND HORSETAILS, A DESCRIPTIVE HANDBOOK. By H. A. Hyde and A. E. Wade, ed. 5, by S. G. Harrison. xii + 178 pp. illus. 1969.—Despite the title of "Welsh Ferns" this useful handbook treats all the native

ferns of the British Isles. This new edition is thus the most recent treatment of the ferns of this area. Mr. Harrison has taken account of current work on hybrids, chromosome numbers, and nomenclature, and has added a completely new section on the fern allies, which were not discussed in the previous editions. This new edition is thus useful even for those having an earlier edition. A review of this new edition was written by C. Jermy (British Fern Gazette 10: 105, 106. 1969), in which a few nomenclatural changes were suggested. This new edition not only divides the Polypodiaceae into numerous smaller families but even into several orders. It may be mentioned that two of these family names are incorrect, Gymnogrammaceae and Aspidiaceae, since they are based on illegitimate generic names. I want to mention only one nomenclatural point, a rather troublesome one. So long as *Polypodium cambricum* L. is considered as a variety of *P. vulgare* L. there is no problem. However, when *P. vulgare* is split into three species, as here, with different chromosome numbers, the matter of priority enters. True *P. vulgare* is a tetraploid, and the diploid is now called *P. australe* Fée (1852). Miss Shivas has found that *P. cambricum* is also diploid, and so in this work it is placed as *Polypodium australe* 'Cambricum'. This form would seem to indicate that it is a cultivar, but it is not, for it was described from wild material and is still found in the wild. The nomenclatural point is that *P. cambricum* L., dating from 1753, antedates *P. australe* Fée by a hundred years and is thus the correct name for the species. The reason that it has not been adopted is probably because it represents an abnormally cut form. One might argue that Art. 71 of the Code could be applied and the epithet *cambricum* rejected as being based on a monstrosity, which means that it can not be used at all, certainly not as a variety of *P. australe*. However, in my opinion, Art. 71 was not intended to make names of this sort illegitimate; that would mean that no abnormal forms could ever be named, for these names would automatically be illegitimate and rejected. A solution to this dilemma in this particular case is to regard *P. cambricum* not as a variety of anything but as a possible hybrid *P. × cambricum*. I do not know if this has ever

been suggested, but it is completely reasonable and probably can not be disproved. The plants do have "hybrid irregularity" and are completely sterile. Since it is a diploid, one of the parents would be *P. australe*; it is impossible to say what the other parent might be, since there is no other diploid *Polypodium* in the area or indeed in all of Europe. Still, this assumption would be sufficient to maintain the name and *P. australe* also and therefore it should probably be made in order to avoid a confusing and somewhat misleading change of name for a common species.—C.V.M.

FERN HYBRIDIZING AT THE UNIVERSITY OF LEEDS, by John D. Lovis. Reprinted from the British Fern Gazette, British Museum (Natural History), London S. W. 7, England. \$0.50 postpaid. 8 pp. 1968.—Dr. Lovis has written an interesting and detailed review of the hybridization techniques that have been used so successfully by pteridologists trained at the University of Leeds. He gives some useful methods for gathering and sowing spores, preventing contamination of cultures by unwanted spores and various extraneous organisms, for transplanting minute prothallia, and for producing cultures ready for hybridization at the proper time. An exacting but rather foolproof method of hybridizing is also presented.—D. B. L.

KARYOLOGICAL STUDIES ON ASPLENIACEAE I. KARYOTYPES OF THREE SPECIES IN ASPLENIUM, by S. Tatuno and S. Kawakami. Bot. Mag. Tokyo 82: 436-444. 1969.—The three species studied, *Asplenium incisum* Thunb., *A. oligophlebium* Baker, and *A. tripteropus* Nakai, are all normal diploids, with $2n = 72$. The authors have studied the chromosome morphology and can divide the chromosomes into six types, each with two subtypes. From these observations they conclude that the true base number for *Asplenium* is 12, and that these "diploid" species are really hexaploids. I believe that this is the first demonstration in support of the belief that modern ferns with high chromosome numbers are really polyploids of ancient ancestors with low numbers.—C.V.M.